State: Commonwealth of Virginia Standard State Hazard Mitigation Plan

Date of Plan: September 2004

Standard State Hazard Mitigation Plan Review and Approval Status

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FEMA Reviewer:	Title:	Date:
Date Received in FEMA Region [Insert #]		
Plan Not Approved		
Plan Approved		
Date Approved		

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STANDARD STATE HAZARD MITIGATION PLAN SUMMARY CROSSWALK

The plan cannot be approved if the plan has not been formally adopted.

Each requirement includes separate elements. All elements of the requirement must be rated "Satisfactory" in order for the requirement to be fulfilled and receive a score of "Satisfactory." Elements of each requirement are listed on the following pages of the Plan Review Crosswalk. A "Needs Improvement" score on elements shaded in gray (recommended but not required) will not preclude the plan from passing. Reviewer's comments must be provided for requirements receiving a "Needs Improvement" score.

SCORING SYSTEM

Please check one of the following for each requirement.

- N Needs Improvement: The plan does not meet the minimum for the requirement. Reviewer's comments must be provided.
- **S Satisfactory:** The plan meets the minimum for the requirement. Reviewer's comments are encouraged, but not required.

Prerequisite	NOT MET	MET
Adoption by the State: §201.4(c)(6) and §201.4(c)(7)		
Planning Process	N	s
Documentation of the Planning Process: §201.4(c)(1)		
Coordination Among Agencies: §201.4(b)		
Program Integration: §201.4(b)		
Risk Assessment	N	s
Identifying Hazards: §201.4(c)(2)(i)		
Profiling Hazards: §201.4(c)(2)(i)		
Assessing Vulnerability by Jurisdiction: §201.4(c)(2)(ii)		
Assessing Vulnerability of State Facilities: §201.4(c)(2)(ii)		
Estimating Potential Losses by Jurisdiction: §201.4(c)(2)(iii)		
Estimating Potential Losses of State Facilities: §201.4(c)(2)(iii)		

willigation Strategy	N	S
Hazard Mitigation Goals: §201.4(c)(3)(i)		
State Capability Assessment: §201.4(c)(3)(ii)		
Local Capability Assessment: §201.4(c)(3)(ii)		
Mitigation Actions: §201.4(c)(3)(iii)		
Funding Sources: §201.4(c)(3)(iv)		
Coordination of Local Mitigation Planning	N	s
Local Funding and Technical Assistance: §201.4(c)(4)(i)		
Local Plan Integration: §201.4(c)(4)(ii)		
Prioritizing Local Assistance: §201.4(c)(4)(iii)		
Plan Maintenance Process	N	s
Monitoring, Evaluating, and Updating the Plan: §201.4(c)(5)(i)		
Monitoring Progress of Mitigation Activities: §201.4(c)(5)(ii) and (iii)		
STANDARD STATE HAZARD MITIGATION PLAN	N APPROVAI	L STATUS
P	LAN NOT A	PPROVED
	PLAN A	PPROVED

See Reviewer's Comments

Mitigation Stratogy

PREREQUISITE

Adoption by the State

Requirement §201.4(c)(6): The plan **must** be formally adopted by the State prior to submittal to [FEMA] for final review and approval.

Requirement §201.4(c)(7): The plan **must** include assurances that the State will comply with all applicable Federal statutes and regulations in effect with respect to the periods for which it receives grant funding, in compliance with 44 CFR 13.11(c). The State will amend its plan whenever necessary to reflect changes in State or Federal laws and statutes as required in 44 CFR 13.11(d).

changes in State of Federal taws and statutes as required in 44	F CIR 13.11(u).			
	Location in the		SCO	ORE
	Plan (section or		NOT	
Element	annex and page #)	Reviewer's Comments	MET	MET
A. Has the State formally adopted the plan?	Chapter 1, p. 4-5			
B. Does the plan provide assurances that the State will comply with all applicable Federal statutes and regulations during the periods for which it receives grant funding, in compliance with 44 CFR 13.11(c), and will amend its plan whenever necessary to reflect changes in State or Federal laws and statutes as required in 44 CFR 13.11(d)?	Chapter 1, p. 1-5			
		SUMMARY SCORE		

PLANNING PROCESS: §201.4(b): An effective planning process is essential in developing and maintaining a good plan.

Documentation of the Planning Process

Requirement §201.4(c)(1): [The State plan **must** include a] description of the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how other agencies participated.

	Location in the		SCO	ORE
	Plan (section or		N	c
Element	annex and page #)	Reviewer's Comments	IV	3
A. Does the plan provide a narrative description of how the plan	Chapter 1, pp.9-			
was prepared?	12,			
	Chapter 2, pp. 2-			
	7			
	Appendix E			
B. Does the plan indicate who was involved in the planning	Chapter 1, pp.			
process?	11-12,			
	Appendix I			
C. Does the plan indicate how other agencies participated in	Chapter 1, pp. 9-			
the planning process?	12,			
	Chapter 2, pp. 2-			
	7			
	Appendix E & I			
		SUMMARY SCORE		

Coordination Among Agencies

Requirement §201.4(b): The [State] mitigation planning process **should** include coordination with other State agencies, appropriate Federal agencies, interested groups, and

0 1	Location in the		SCO	DRE
Element	Plan (section or annex and page #)	Reviewer's Comments	N	S
Does the plan describe how Federal and State agencies were involved in the planning process?	Chapter 2, pp.3-7	Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.		
B. Does the plan describe how interested groups (e.g., businesses, non-profit organizations, and other interested parties) were involved in the planning process?	Chapter 1, p. 10 Chapter 2, pp. 3-4 Chapter 6, p. 4 Appendix E & I	Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.		
		SUMMARY SCORE		

Program Integration

Requirement §201.4(b): [The State mitigation planning process **should**] be integrated to the extent possible with other ongoing State planning efforts as well as other FEMA mitigation programs and initiatives.

	Location in the		SCO	ORE
Element	Plan (section or annex and page #)	Reviewer's Comments	N	S
A. Does the plan describe how the State mitigation planning process is integrated with other ongoing State planning efforts?	Chapter 2, pp. 7- 14 Chapter 6, p. 2	Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.		
B. Does the plan describe how the State mitigation planning process is integrated with FEMA mitigation programs and initiatives?	Chapter 2, pp.14- 19 Appendix K	Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.		
		SUMMARY SCORE		

RISK ASSESSMENT: $\S 201.4(c)(2)$: [The State plan must include a risk assessment] that provides the factual basis for activities proposed in the strategy portion of the mitigation plan. Statewide risk assessments must characterize and analyze natural hazards and risks to provide a statewide overview. This overview will allow the State to compare potential losses throughout the State and to determine their priorities for implementing mitigation measures under the strategy, and to prioritize jurisdictions for receiving technical and financial support in developing more detailed local risk and vulnerability assessments.

Identifying Hazards

Requirement §201.4(c)(2)(i): [The State risk assessment shall include an] overview of the type ... of all natural hazards that can affect the State

	Location in the		SCO	ORE
Element	Plan (section or annex and page #)	Reviewer's Comments	N	S
A. Does the plan provide a description of the type of all natural hazards that can affect the State? If the hazard identification omits (without explanation) any hazards commonly recognized as threats to the State, this part of the plan cannot receive a Satisfactory score.	Chapter 3, pp. 3-8			
		SUMMARY SCORE		

Profiling Hazards

Requirement §201.4(c)(2)(i): [The State risk assessment shall include an overview of the] location of all natural hazards that can affect the State, including information on previous occurrences of hazard events, as well as the probability of future hazard events, using maps where appropriate

·	Location in the		SCO	ORE
Element	Plan (section or annex and page #)	Reviewer's Comments	N	S
A. Does the risk assessment identify the location (i.e., geographic area affected) of each natural hazards addressed in the plan?	Chapter 3, pp. 9- 36 Appendix F (Maps)			
B. Does the plan provide information on previous occurrences of each hazard addressed in the plan?	Chapter 3, pp. 9- 36 Appendix F (Maps)			
C. Does the plan include the probability of future events (i.e., chance of occurrence) for each hazard addressed in the plan?	Chapter 3, pp. 9- 36 Appendix F (Maps)			
		SUMMARY SCORE		

Assessing Vulnerability

Requirement $\S 201.4(c)(2)(ii)$: [The State risk assessment shall include an] overview and analysis of the State's vulnerability to the hazards described in this paragraph (c)(2), based on estimates provided in local risk assessments as well as the State risk assessment. The State shall describe vulnerability in terms of the jurisdictions most threatened by the identified hazards, and most vulnerable to damage and loss associated with hazard events. State owned critical or operated facilities located in the identified hazard areas shall also be addressed

Assessing Vulnerability by Jurisdiction

	Location in the		SCO	ORE
Element	Plan (section or annex and page #)	Reviewer's Comments	N	S
A. Does the plan describe the State's vulnerability based on estimates provided in local risk assessments as well as the State risk assessment?	Chapter 3, p. 37			
B. Does the plan describe the State's vulnerability in terms of the jurisdictions most threatened and most vulnerable to damage and loss associated with hazard event(s)?	Chapter 3, pp. 37 - 49 Appendix F (Maps)			
		SUMMARY SCORE		

Assessing Vulnerability of State Facilities

	Location in the		SCO	ORE
Element	Plan (section or annex and page #)	Reviewer's Comments	N	S
A. Does the plan describe the types of State owned or operated critical facilities located in the identified hazard areas?	Chapter 3, pp.50 – 55 Appendix F (Tables)			
		SUMMARY SCORE		

Estimating Potential Losses

Requirement §201.4(c)(2)(iii): [The State risk assessment **shall** include an] overview and analysis of potential losses to the identified vulnerable structures, based on estimates provided in local risk assessments as well as the State risk assessment. The State **shall** estimate the potential dollar losses to State owned or operated buildings, infrastructure, and critical facilities located in the identified hazard areas.

Estimating Potential Losses by Jurisdiction

	Location in the		SC	ORE
Element	Plan (section or annex and page #)	Reviewer's Comments	N	S
A. Does the plan present an overview and analysis of the potential losses to the identified vulnerable structures?	Chapter 3, pp. 56-57			
B. Are the potential losses based on estimates provided in local risk assessments as well as the State risk assessment?	Chapter 3, pp. 56-57			
		SUMMARY SCORE		

Estimating Potential Losses of State Facilities

J	Location in the		SCO)RE
Element	Plan (section or annex and page #)	Reviewer's Comments	N	S
A. Does the plan present an estimate of the potential dollar losses to State owned or operated buildings, infrastructure, and critical facilities in the identified hazard areas?	Chapter 3, pp. 56-57 Appendix F (Tables)			
		SUMMARY SCORE		

MITIGATION STRATEGY: \$201.4(c)(3) [To be effective the plan must include a] Mitigation Strategy that provides the State's blueprint for reducing the losses identified in the risk assessment.

Hazard Mitigation Goals

Requirement §201.4(c)(3)(i): [The State mitigation strategy **shall** include a] description of State goals to guide the selection of activities to mitigate and reduce potential losses.

	Location in the		SCO	ORE
	Plan (section or		N	c
Element	annex and page #)	Reviewer's Comments	IV	3
A. Does the plan provide a description of State mitigation goals that guide the selection of mitigation activities? (GOALS are long- term; represent what the state wants to achieve, such as "eliminate flood damage"; and are based on the risk assessment findings.)	Chapter 4, pp. 1-2			
		SUMMARY SCORE		

State Capability Assessment

Requirement §201.4(c)(3)(ii): [The State mitigation strategy **shall** include a] discussion of the State's pre-and post-disaster hazard management policies, programs, and capabilities to mitigate the hazards in the area, including: an evaluation of State laws, regulations, policies, and programs related to hazard mitigation as well as to development in hazard-prone areas [and] a discussion of State funding capabilities for hazard mitigation projects

	Location in the		SC	ORE
Element	Plan (section or annex and page #)	Reviewer's Comments	N	S
A. Does the plan include an evaluation of the State's pre-disaster hazard management policies, programs, and capabilities?	Chapter 4, pp.4-8 Appendix D			
B. Does the plan include an evaluation of the State's post-disaster hazard management policies, programs, and capabilities?	Chapter 4, pp. 4- 5, 8-18 Appendix D			
C. Does the plan include an evaluation of the State's policies related to development in hazard prone areas ?	Chapter 2, pp. 10-12 Appendix D			
D. Does the plan include a discussion of State funding capabilities for hazard mitigation projects?	Chapter 2, p. 14- 19 (federal programs) Chapter 4, pp. 4- 18 (noted on tables), 27-29 Appendix D			
		SUMMARY SCORE		

Local Capability Assessment

Requirement §201.4(c)(3)(ii): [The State mitigation strategy **shall** include] a general description and analysis of the effectiveness of local mitigation policies, programs, and capabilities.

	Location in the		SCO	ORE
Element	Plan (section or annex and page #)	Reviewer's Comments	N	S
A. Does the plan present a general description of the local mitigation policies, programs, and capabilities?	Chapter 2, pp. 7-8			
B. Does the plan provide a general analysis of the effectiveness of local mitigation policies, programs, and capabilities?	Chapter 2, pp. 7-8			
		SUMMARY SCORE		

Mitigation Actions

Requirement §201.4(c)(3)(iii): [State plans **shall** include an] identification, evaluation, and prioritization of cost-effective, environmentally sound, and technically feasible mitigation actions and activities the State is considering and an explanation of how each activity contributes to the overall mitigation strategy. This section **should** be linked to local plans, where specific local actions and projects are identified.

	Location in the		SCC	DRE
Element	Plan (section or annex and page #)	Reviewer's Comments	N	S
A. Does the plan identify cost-effective, environmentally sound, and technically feasible mitigation actions and activities the State is considering?	Chapter 4, pp. 3- 4, 19-26 Appendix H			
B. Does the plan evaluate these actions and activities?	Chapter 4, pp. 3- 4, 19-26 Appendix H			
C. Does the plan prioritize these actions and activities?	Chapter 4, pp. 3- 4, 19-26 Appendix H			
D. Does the plan explain how each activity contributes to the overall State mitigation strategy?	Chapter 4, pp. 3- 4, 19-26 Appendix H			
E. Does the mitigation strategy section reflect actions and projects identified in local plans?	Chapter 4, p. 19 Chapter 5, p. 10	Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.		
		SUMMARY SCORE		

Funding Sources

Requirement §201.4(c)(3)(iv): [The State mitigation strategy **shall** include an] identification of current and potential sources of Federal, State, local, or private funding to implement mitigation activities.

	Location in the		SCO	ORE
Element	Plan (section or annex and page #)	Reviewer's Comments	N	S
A. Does the plan identify current sources of Federal, State, local, or private funding to implement mitigation activities?	Chapter 2, p. 14- 19 (federal programs) Chapter 4, pp. 4- 18 (noted on tables), 27-29 Appendix D			
B. Does the plan identify potential sources of Federal, State, local, or private funding to implement mitigation activities?	Chapter 2, p. 14- 19 (federal programs) Chapter 4, pp. 4- 18 (noted on tables), 27-29 Appendix D			
		SUMMARY SCORE		

COORDINATION OF LOCAL MITIGATION PLANNING

Local Funding and Technical Assistance

Requirement §201.4(c)(4)(i): [The section on the Coordination of Local Mitigation Planning must include a] description of the State process to support, through funding and technical assistance, the development of local mitigation plans.

	Location in the		SC	ORE
Element	Plan (section or annex and page #)	Reviewer's Comments	N	S
Does the plan provide a description of the State process to support, through funding and technical assistance, the development of local mitigation plans?	Chapter 5, pp. 1- 10 Appendix G			
		SUMMARY SCORE		

Local Plan Integration

Requirement §201.4(c)(4)(ii): [The section on the Coordination of Local Mitigation Planning **must** include a] description of the State process and timeframe by which the local plans will be reviewed, coordinated, and linked to the State Mitigation Plan.

	Location in the		SC	ORE
Element	Plan (section or annex and page #)	Reviewer's Comments	N	S
A. Does the plan provide a description of the process and timeframe the State established to review local plans?	Chapter 5, pp. 5- 10			
B. Does the plan provide a description of the process and timeframe the State established to coordinate and link local plans to the State Mitigation Plan?	Chapter 5, pp. 9- 10			
plane to the otate magazer i all.		SUMMARY SCORE		

Prioritizing Local Assistance

Requirement §201.4(c)(4)(iii): [The section on the Coordination of Local Mitigation Planning **must** include] criteria for prioritizing communities and local jurisdictions that would receive planning and project grants under available funding programs, which **should** include consideration for communities with the highest risks, repetitive loss properties, and most intense development pressures.

Further, that for non-planning grants, a principal criterion for prioritizing grants **shall** be the extent to which benefits are maximized according to a cost benefit review of proposed projects and their associated costs.

	Location in the		SCO	ORE
Element	Plan (section or annex and page #)	Reviewer's Comments	N	S
A. Does the plan provide a description of the criteria for prioritizing those communities and local jurisdictions that would receive planning and project grants under available mitigation funding programs?	Chapter 5, p. 1- 10			
B. Did the prioritization criteria include, for non-planning grants, the consideration of the extent to which benefits are maximized according to a cost benefit review of proposed projects and their associated cost?	Chapter 5, p. 9- 10 Appendix K			
C. Do the criteria include considerations for communities with the highest risk?	Chapter 5, p. 1- 10 (p. 3 criteria A, E)	Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.		
D. Do the criteria include considerations for repetitive loss properties?	Chapter 5, p. 1- 10 (p. 3 criterion F)	Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.		
E. Do the criteria include considerations for communities with the most intense development pressures?	Chapter 5, p. 1- 10 (p. 3 criterion D)	Note: A "Needs Improvement" score on this requirement will not preclude the plan from passing.		
		SUMMARY SCORE		

PLAN MAINTENANCE PROCESS

Monitoring, Evaluating, and Updating the Plan

Requirement §201.4(c)(5)(i): [The Standard State Plan Maintenance Process **must** include an] established method and schedule for monitoring, evaluating, and updating the plan.

	Location in the		SCO	DRE
Element	Plan (section or annex and page #)	Reviewer's Comments	N	S
A. Does the plan describe the method and schedule for monitoring the plan? (e.g., identifies the party responsible for monitoring , includes schedule for reports, site visits, phone calls, and/or meetings)	Chapter 6, pp. 1-6			
B. Does the plan describe the method and schedule for evaluating the plan? (e.g., identifies the party responsible for evaluating the plan, includes the criteria used to evaluate the plan)	Chapter 6, pp. 2-4			
C. Does the plan describe the method and schedule for updating the plan?	Chapter 6, pp. 2-6			
		SUMMARY SCORE		

Monitoring Progress of Mitigation Activities

Requirement §201.4(c)(5)(ii): [The Standard State Plan Maintenance Process **must** include a] system for monitoring implementation of mitigation measures and project closeouts.

Requirement §201.4(c)(5)(iii): [The Standard State Plan Maintenance Process must include a] system for reviewing progress on achieving goals as well as activities and projects in the Mitigation Strategy.

	Location in the		SCO	ORE
Element	Plan (section or annex and page #)	Reviewer's Comments	N	S
A. Does the plan describe how mitigation measures and project closeouts will be monitored?	Chapter 6, pp.6-7			
B. Does the plan identify a system for reviewing progress on achieving goals in the Mitigation Strategy?	Chapter 6, pp.2-4			
C. Does the plan identify a system for reviewing progress on implementing activities and projects of the Mitigation Strategy?	Chapter 6, pp.2-7			
		SUMMARY SCORE		

Matrix A: Profiling Hazards

This matrix can assist FEMA in scoring each hazard. States may find the matrix useful to ensure that their plan addresses each natural hazard that can affect the State. **Completing the matrix is not required.**

Note: First, check which hazards are identified in requirement §201.4(c)(2)(i). Then, place a checkmark in either the N or S box for each **applicable** hazard. An "N" for any element of any identified hazard will result in a "Needs Improvement" score for this requirement. List the hazard and its related shortcoming in the comments section of the Plan Review Crosswalk.

Hazard Type	Hazards Identified Per Requirement §201.4(c)(2)(i)	A. Location			evious rrences	C. Probability of Future Events		
	Yes	N	S	N	S	N	S	
Avalanche								
Coastal Erosion (In Flooding Section)								
Coastal Storm (In Flooding Section)								
Dam Failure								
Drought								
Earthquake								
Expansive Soils								
Extreme Heat (in Drought Section)								
Flood								
Hailstorm (in Tornado Section)								
Hurricane								
Land Subsidence	\boxtimes							
Landslide								
Severe Winter Storm (in Blizzard Section)								
Tornado								
Tsunami								
Volcano								
Wildfire	\boxtimes							
Windstorm								
Other								
Other								
Other								

To check boxes, double click on the box and change the default value to "checked."

Legend:

§201.4(c)(2)(i) Profiling Hazards

- A. Does the risk assessment identify the location (i.e., geographic area affected) of each natural hazard addressed in the plan?
- B. Does the plan provide information on previous occurrences of each hazard addressed in the plan?
- C. Does the plan include the probability of future events (i.e., chance of occurrence) for each hazard addressed in the plan?

Matrix B: Assessing Vulnerability

This matrix can assist FEMA in scoring each hazard. States may find the matrix useful to ensure that their plan addresses each requirement. Note that this matrix only includes items for Requirements §201.4(c)(2)(ii) and §201.4(c)(2)(iii) that are related to specific natural hazards that can affect the State. **Completing the matrix is not required**.

Note: First, check which hazards are identified in requirement §201.4(c)(2)(i). Then, place a checkmark in either the N or S box for each **applicable** hazard. An "N" for any element of any identified hazard will result in a "Needs Improvement" score for this requirement. List the hazard and its related shortcoming in the comments section of the Plan Review Crosswalk.

Hazard Type	Hazards Identified Per Requirement §201.4(c)(2)(i)		1. Vulnerability by Jurisdiction		2. Vulnerability to State Facilities			3. Loss Estimate by Jurisdiction		4. Loss Estimate of State Facilities	
	Yes		<u>N</u>	S	<u>N</u>	S		<u>N</u>	S	N	S
Avalanche											
Coastal Erosion	\square						es				
Coastal Storm	\square	Ϊξ					Losses				
Dam Failure	\square	ig					۲				
Drought		Vulnerability					Potential				
Earthquake	\square	듴					en				
Expansive Soils							ot				
Extreme Heat		Assessing									
Flood		988					tir				
Hailstorm		SS					<u>ii</u>				
Hurricane							Estimating				
Land Subsidence		§201.4(c)(2)(ii)									
Landslide		<u>~</u>					2)(i				
Severe Winter Storm		4.					()				
Tornado		2					§201.4(c)(2)(iii)				
Tsunami		Š					201				
Volcano							ò				
Wildfire	\square										
Windstorm											
Other											
Other											
Other											

To check boxes, double click on the box and change the default value to "checked."

Legend

§201.4(c)(2)(ii) Assessing Vulnerability by Jurisdiction (see element B)

1. Does the plan describe the State's vulnerability in terms of the jurisdictions most threatened and most vulnerable to damage and loss associated with hazard event(s)?

§201.4(c)(2)(ii) Assessing Vulnerability to State Facilities (see element A)

2. Does the plan describe the types of State owned or operated critical facilities located in the identified hazard areas?

§201.4(c)(2)(iii) Estimating Potential Losses by Jurisdiction (see element A)

3. Does the plan present an overview and analysis of the potential losses to the identified vulnerable structures?

§201.4(c)(2)(iii) Estimating Potential Losses of State Facilities (see element A)

4. Does the plan present an estimate of the potential dollar losses to State owned or operated buildings, infrastructure, and critical facilities in the identified hazard areas?